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ASSIGNMENT BOOKLET
Mathematics 8
Unit 2 Assignment

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Date Assignment Submitted: _____	(If label is missing or incorrect)
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Assigned Teacher: _____

Assignment Grading: _____

Graded by: _____

Date Assignment Received:

Student's Questions and Comments

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Please verify that preprinted label is for correct course and module.

Teacher's Comments

_____
Teacher

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Mathematics 8

LearnEveryWare

Unit 2
Integers
Assignment Booklet

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Summary

	Total Possible Marks	Your Mark
Lesson 1	20	
Lesson 2	28	
Lesson 3	19	
Lesson 4	24	
Lesson 5	20	
	111	

Teacher's Comments

Mathematics 8
Unit 2: Integers
Assignment Booklet
ISBN 978-0-7741-3140-7

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Teachers	✓
Administrators	
Home Instructors	
General Public	
Other	

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UNIT 2 ASSIGNMENT BOOKLET

The value of each assignment and each question is stated in the left margin.

Unit 2: Lesson 1 Question Set

(2 marks) 1. A student looked at the following expression:

(−3) + (−3) + (−3) + (−3) + (−3)

Indicate how this repeated addition can be represented as a multiplication statement.

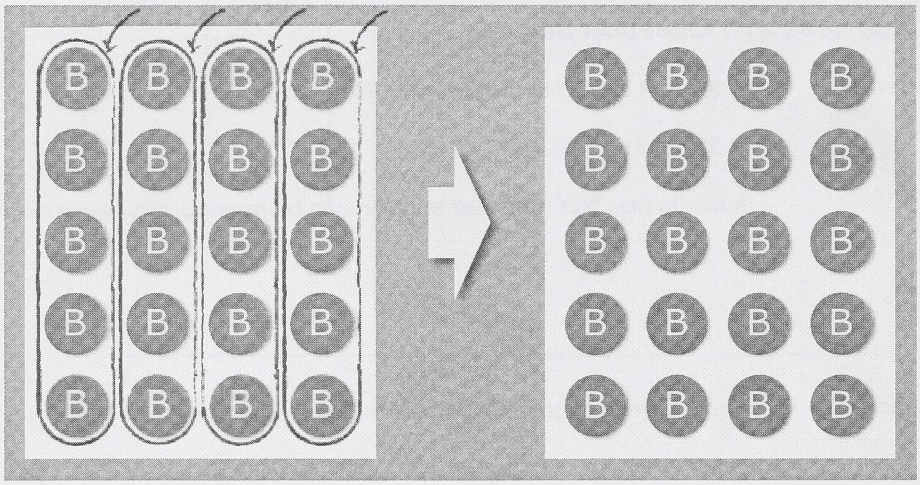
(2 marks) 2. The following expression shows the multiplication of two integers.

(+4) × (+9)

Represent this expression as repeated addition.

3. Is the number 49 a perfect square? Justify your answer with a drawing on the grid.

Lin used the following set of diagrams to record the steps she used in modelling a multiplication statement.



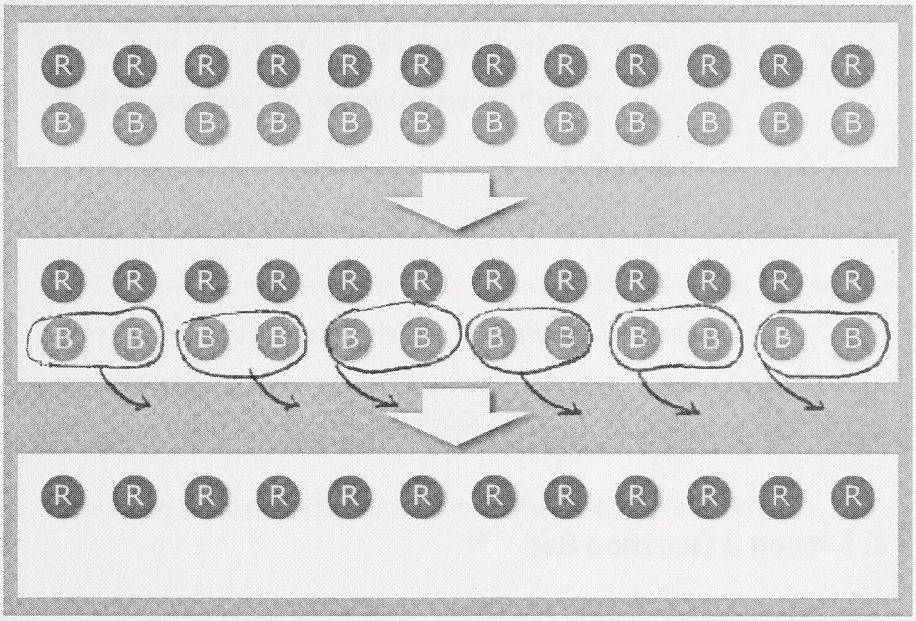
(1 mark) a. Describe the characteristics (colour and number of chips) of the groups that were inserted.

(1 mark) b. Indicate how many groups were inserted.

(1 mark) c. Write the multiplication statement represented by the set of diagrams.

(1 mark) d. Indicate what integer value the product is equal to.

4. Benji recorded the steps he used in modelling a multiplication statement with the following set of diagrams.



(1 mark) a. Describe the characteristics (colour and number of chips) of the groups that were removed.

(1 mark) b. Indicate the number of groups that were removed.

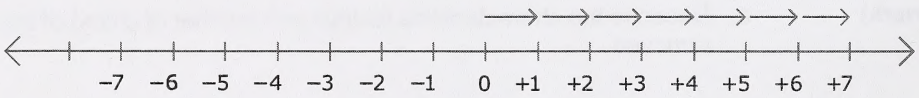
(1 mark) c. Write the multiplication statement that is represented by the set of diagrams.

(1 mark) d. Indicate the integer value of the product.

(6 marks) 5. A helicopter goes down 4 m each second over a period of 11 s in preparation for landing. Calculate the change in altitude of the helicopter during this period of time. Use integer multiplication to do your calculation. Use integer chips to do the multiplication, and show a set of diagrams to record how you used the integer chips.

Unit 2: Lesson 2 Question Set

1. Arrows were placed above a number line as follows.



(2 marks) a. What integer does each arrow represent? Explain.

_____

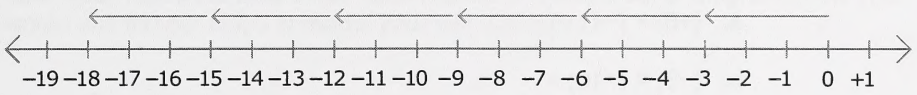
_____

_____

(2 marks) b. Write the multiplication statement represented by the diagram.

(1 mark) c. What is the value of the product of the multiplication statement?

2. A number-line diagram was used to represent a multiplication statement.

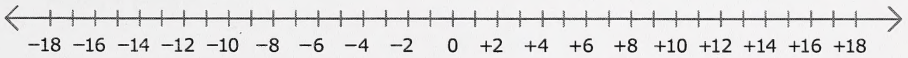


(2 marks) a. What integer does each arrow represent? Explain

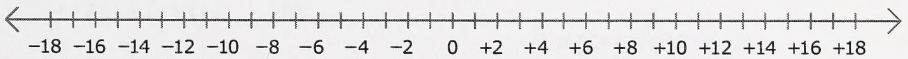
(2 marks) b. Write the multiplication statement represented by the diagram.

(1 mark) c. What is the value of the product of the multiplication statement?

(5 marks) 3. Use the number line to find the product for (+3) × (−5).



(5 marks) 4. Use the number line to find the product for (6+) × (−2).



(4 marks) 5. Use the sign rule to complete the following multiplication statements.

a. $(+8) \times (-4) =$

b. $(-3) \times (+10) =$

c. $(-7) \times (-7) =$

d. $(+6) \times (+1) =$

(4 marks) 6. Sooty shearwaters dive an average of 14 m while feeding. Their deepest dives are 5 times as deep as their average dive. Use integer multiplication to determine their deepest dive.

Unit 2: Lesson 3 Question Set

(9 marks) 1. Complete the following division statements. For each statement, draw a set of diagrams to show how you use integer chips to model the division.

a. $(+24) \div (+8) = ?$

b. $(-10) \div (-2) = ?$

c. $(-16) \div (+2) = ?$

(5 marks) 2. The height of a helicopter changed at a rate of −2 m each second as it approached a ship. If the helicopter dropped 16 m, how long would it take?

(5 marks) 3. During its winter sleep of 5 months, a bear loses 75 kg of its body mass. Calculate how much mass the bear loses each month. Show in a set of diagrams how you would use integer chips to model your calculation.

Unit 2: Lesson 4 Question Set

(9 marks) 1. Using a number line, complete the following division statements. Include diagrams in your work.

a. $(-12) \div (-6) = ?$

b. $(-9) \div (+3) = ?$

c. $(+24) \div (+6) = ?$

(6 marks) 2. Add the correct sign to complete the following division statements. Give a reason for your answers.

a. $(+143) \div (+11) = ___13$

b. $(-21) \div (+3) = ___7$

c. $(-54) \div (-6) = ___9$

(3 marks) 3. A student made the following diagram to show how she modelled a division statement.

What division statement is modelled by the student's diagram? Give reasons for your answers.

(5 marks) 4. An elevator cage at a potash mine moves miners up or down at a rate of 6 m every second. The cage travels within a mine shaft that runs from the surface of the ground to the bottom of the mine. The mine is 900 m deep. How long will the cage travel to the bottom of the mine? Show your work.

Unit 2: Lesson 5 Question Set

(8 marks) 1. Calculate the value using the proper order of operations. Show your solution.

a. $[(+3) - (-2)] \div (+5)$

b. $(-5) \times (+9) - (+4) \div (-2)$

c. $(+12) \div (-6) \div (+2)$

d. $(+24) - (+4) \times (+5)$

(4 marks) 2. A student calculated the expression $32 \div (+4) + (-8)$ to be equal to -8.

a. Describe what mistake the student likely made.

_____

_____

_____

b. What is the correct value of the expression? Show your solution.

3. A hang-glider rises 40 m for every 1 of the 3 minutes that it rides an updraft. After that, the glider descends 20 m for every 1 of the next 5 minutes of its glide.

(3 marks) a. Write an integer expression that could represent the overall change in altitude of the hang-glider during the 8 minutes of travel. Show how you came up with the expression.

(2 marks) b. What is the overall change in altitude of the hang-glider over the 8 minutes of gliding? Show your work.

4. The submersible Ben Franklin was used to observe the Gulf Stream at depths between 200 m and 600 m.

(2 marks) a. What integers can you use to represent the depths in metres?

(1 mark) b. Write an integer expression you could use to represent out how many times greater a depth of 600 m is as compared to a 200-m depth.

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